

ABSTRACT OF THE DISCLOSURE

An apparatus is provided for determining the temperature of a flowing medium in a pipe or tube conduit. The apparatus has a sensor element formed from a ceramic substrate and a thin-film resistor arranged on the substrate and electrically and mechanically connected to at least two electrical leads. The sensor element is arranged in a plastic housing having an opening at least for the pipe or tube and being formed as a molded part. The electrical leads are formed from metal strips, each having first and second ends, with the sensor element arranged at the first end of the metal strips. The plastic housing is molded around the metal strips in a region between their first and second ends, and preferably forms a plug at the second end of the metal strips. Methods are also provided for producing the apparatus, wherein the first end of the metal strips may be bent up about 90° before the molding the housing around the metal strips, and optionally around the conduit, and then bent back again after molding and connected to the conduit by a heat-conductive material.